

GIS Analyst - 2342

Primary Reason Why Classification Exists

To perform routine technical work operating Geographic Information Systems (GIS) software to maintain and update layers of the GIS system

Distinguishing Features of the Class

Work in this class perform routine specialized and detailed GIS mapping and analysis. Work requires entering and updating GIS database information, preparing maps and other graphic representations, and performing basic spatial analyses. Performs standard to moderately difficult tasks, are assigned to work on smaller projects or discrete portions of larger projects and are expected to exercise basic problem-solving skills. Employees typically work independently and make routine decisions without the need for direct supervision.

Essential Duties

- Performs routine GIS data maintenance, manipulation, analysis, extraction and generation assignments; performs basic data research, investigation and verification; updates and maintains files of digital pictures of streets and street problems for City use; constructs data tables; performs record keeping and inventory; documents and files data sources and map files for future reference
- GPS field / data collection
- Update , add and maintain GPS data into the GIS geodatabase
- Maintain, update and edit Geodatabase
- Prepares and produces basic maps and other graphic representations displaying layers and attribute data from the database, using cartographic techniques to represent spatial data; enters, updates and maintains data layers, using GIS tools, relational databases; enters attribute data pertaining to specific features into a relational database; incorporates maps, charts, spreadsheet data and text into reports
- Prepares and updates maps, drawings, plans, spreadsheets, data files and documentation
- Performs basic spatial analysis including buffering, and zone consolidation; interprets plans, photographs, maps and legal descriptions
- Codes and digitizes maps and geographical feature data into various GIS layers
- Responds to requests from the public for GIS data
- Consults with supervisor and client regarding scope of mapping requests; researches available data; develops map layouts and executes design drafts
- Conducts site visits to verify and update data
- Assists in resolving and troubleshooting basic GIS-related problems; maintains computer hardware and accessories; provides basic GIS software training for personnel
- Attends staff meetings, training and conferences
- Provides GIS support for other software applications
- Performs related work as required

Knowledge of:

- Basic geographic information system concepts, practices and techniques, including computer mapping and attribute data conversion, transfer, manipulation and analysis
- Basic GIS software, tools and applications
- SDE Geodatabase
- Basic knowledge in ArcGIS Online application
- Trimble GPS data collection; GPS software Pathfinder Office.
- Relational database concepts, methods, and practices
- Terminology, methods, and techniques used in engineering maps and records
- Data gathering and research skills
- Word processing, spreadsheet, and database software
- Operating system fundamentals and procedures for the use of computer systems and related equipment
- Algebra, geometry, and trigonometry as applied to engineering and mapping formulas
- Use of ESRI ArcGIS software to enter, edit, and output geographic information and be familiar with the Windows operating system and file systems
- Standard hardware such as Windows workstations, scanners, digitizers, large format inkjet plotters, office printers
- Methods and techniques of designing and creating basic cartographic products
- Geographic concepts of location, scale, resolution, and generalization
- Principles and practices of effective customer service
- Principles of project management to facilitate own work in small group processes

Ability to:

- Utilize basic GIS software, computer-aided drafting, graphics and other applications to carry out assigned responsibilities
- Perform basic engineering computations and computer analyses
- Independently perform basic GIS assignments with initiative and creativity
- Interpret maps, graphs, satellite and aerial images, and geologic conditions
- Recognize and resolve standard discrepancies in attribute data
- Perform basic spatial analyses
- Prepare accurate GIS cartographic products
- Communicate effectively both orally and in writing
- Establish and maintain effective working relationships with other staff, management, the general public, and others encountered in the course of work

Physical Requirements

Employees in this class typically operate equipment and machinery such as a computer keyboard and terminal, digitizer, plotter, blue line printers, photocopier, calculator, drafting instruments, and engineer and architect scale. Employees must be able to coordinate eyes, hands, feet and limbs in performing skilled movements such as rapid keyboard use and focused concentration on data. Employees need to recognize and identify degrees of similarities or differences between characteristics of colors, textures, and forms associated with job-related objects, materials, and

tasks. Work typically requires the exertion of light physical effort and is considered as sedentary to light work typically involving lifting, carrying, pushing and pulling of up to 30 pounds. Tasks may involve sitting or standing for extended periods of time at a keyboard or workstation

Working Conditions

Work is typically performed in a climate controlled office environment with sufficient lighting and no adverse conditions

Education and Experience

Graduation from a four college or university with a Bachelor of Science Degree in Geography with related course work in computer science, surveying engineering, forestry and earth sciences. 2- 4 years' experience in GIS systems.

Special Requirements

Valid North Carolina driver's license may be required to make site visits where GIS applications are being used

FLSA Status: Nonexempt (eligible for overtime or equivalent compensatory time at 1½ times the employee's regular weekly rate for all hours worked in excess of 40 hours in the City's official work week and not the employee's work schedule)

Disclaimer

This classification specification has been designed to indicate the general nature and level of work performed by employees within this classification. It is not designed to contain or be interpreted as a comprehensive inventory of all duties, responsibilities, and qualifications required of employees to perform the job. The Physical Requirements and Working Conditions section of this classification may vary from position to position and a more thorough description of these elements can be found in the employee's Position Analysis Questionnaire (PAQ). The employer reserves the right to assign or otherwise modify the duties assigned to this classification.

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